Assignee: Intel Corporation

Page 2

Dkt: P18318 (INTEL)

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method, comprising:

creating a table of profile data, said table comprising a plurality of requester profiles corresponding to a plurality of requestors of data, each said requester profile defining a relationship between a requester and historical device access data;

storing, in a cache memory, data corresponding to said historical device access data for a plurality of said requesters;

receiving a data read request for said data from one or more requesters and determining if said data read request matches said historical device access data;

retrieving, from said cache memory and in response to said data request from one or more requesters, said data corresponding to said historical device access data; and

sending said data to said one or more requesters., retrieving selected data from one or more mass storage devices, based at least in part on at least one requester profile relating at least one requester of data with historical device access information of said at least one requester of data.

- 2. Cancelled
- 3. (Currently Amended) The method of claim 1, wherein:

said historical device access information comprises, at least in part, device identification information of one or more said mass storage devices.

4. (Original) The method of claim 1, wherein:

said historical device access information comprises at least in part, historical large block address (LBA) data generated by one or more data requests from said requester of data.

- 5. Cancelled
- 6. Cancelled

Serial Number: 10/808,182 Filing Date: March 24, 2004

Title: INTEGRATED CIRCUIT CAPABLE OF PRE-FETCHING DATA

Assignee: Intel Corporation

- 7. (Currently Amended) The method of claim $\frac{6}{1}$, further comprising:
 - updating said profile with additional device access information.
- 8. (Original) The method of claim 1, wherein:

said requester of data comprises information selected from a media access control (MAC) address, processor identification and user information.

9. (Currently Amended) The method of claim $2 \frac{1}{2}$, further comprising:

retrieving device data layout information from one or more said mass storage devices and storing said device data layout information in said cache memory.

10. (Original) The method of claim 9, further comprising:

responding to a request for data by determining the location of said data on said one or more mass storage devices by performing selected disk access operations on said data layout information in said cache memory.

11. (Currently Amended) The method of claim 9, wherein:

said device data layout <u>information</u> comprises a file system type selected from a file allocation (FAT) file system and a new technology file system (NTFS) type.

12. (Currently Amended) An apparatus, comprising:

an integrated circuit configured to:

create a table of profile data, said table comprising a plurality of requester profiles corresponding to a plurality of requestors of data, each said requester profile defining a relationship between a requester and historical device access data;

store, in a cache memory, data corresponding to said historical device access data for a plurality of said requesters;

receive a data read request for said data from one or more requesters and determining if said data read request matches said historical device access data;

retrieve, from said cache memory and in response to said data request from one or more requesters, said data corresponding to said historical device access data; and

Serial Number: 10/808,182 Filing Date: March 24, 2004

Title: INTEGRATED CIRCUIT CAPABLE OF PRE-FETCHING DATA

Assignee: Intel Corporation

send said data to said one or more requesters.

that is capable of retrieving selected data from one or more

mass storage devices, based at least in part on at least one requester profile relating at least one request of data with historical device access information of said at least one requester of data.

13. Cancelled

14. (Original) The apparatus of claim 12, wherein:

said historical device access information comprises at least in part, historical large block address (LBA) data generated by one or more data requests from said requester of data.

15. Cancelled

16. Cancelled

17. (Currently Amended) The apparatus of claim 46 12, wherein:

said integrated circuit is further capable of updating said requester profile with additional device access information from one or more said requesters of data.

18. (Original) The apparatus of claim 12, wherein:

said requester of data comprises information selected from a media access control (MAC) address, processor identification and user information.

19. (Currently Amended) The apparatus of claim 13 12, wherein:

said integrated circuit is further capable of retrieving device data layout information from one or more said-mass storage devices and storing said device data layout information in said cache memory.

Page 4 Dkt: P18318 (INTEL)

Serial Number: 10/808,182

Filing Date: March 24, 2004

Title: INTEGRATED CIRCUIT CAPABLE OF PRE-FETCHING DATA

Assignee: Intel Corporation

20. (Original) The apparatus of claim 19, wherein:

said integrated circuit is further capable of responding to a request for data by determining the location of said data on said one or more mass storage devices by performing selected disk access operations on said data layout information in said cache memory.

Page 5

Dkt: P18318 (INTEL)

21. (Currently Amended) The apparatus of claim 19, wherein:

said device data layout information comprises a file system type selected from a file allocation (FAT) file system and a new technology file system (NTFS) type.

22. (Currently Amended) An article, comprising:

a storage medium having stored thereon instructions that when executed by a machine result in the following:

creating a table of profile data, said table comprising a plurality of requester profiles corresponding to a plurality of requestors of data, each said requester profile defining a relationship between a requester and historical device access data;

storing, in a cache memory, data corresponding to said historical device access data for a plurality of said requesters;

receiving a data read request for said data from one or more requesters and determining if said data read request matches said historical device access data;

retrieving, from said cache memory and in response to said data request from one or more requesters, said data corresponding to said historical device access data; and

sending said data to said one or more requesters.

retrieving, by an integrated circuit, selected data from one or more mass storage devices, based at least in part on at least one requester profile relating at least one request of data with historical device access information of said at least one requester of data.

23. Cancelled

24. Cancelled

Serial Number: 10/808,182 Filing Date: March 24, 2004

Title: INTEGRATED CIRCUIT CAPABLE OF PRE-FETCHING DATA

Assignee: Intel Corporation

25. Cancelled

26. (Original) The article of claim 22, wherein:

said integrated circuit is capable of updating said profile with additional device access information.

27. (Currently Amended) The article of claim 20 22, wherein:

said integrated circuit is capable of retrieving device data layout information from one or more said mass storage devices and storing said device data layout information in cache memory.

Page 6

Dkt: P18318 (INTEL)

28. (Original) The article of claim 27, wherein:

said integrated circuit is capable of responding to a request for data by determining the location of said data on said one or more mass storage devices by performing selected disk access operations on said data layout information in said cache memory.

29. (Currently Amended) A system, comprising:

a controller card including an integrated circuit, the controller card being capable of being coupled to a bus, the integrated circuit <u>configured to:</u>

create a table of profile data, said table comprising a plurality of requester profiles corresponding to a plurality of requestors of data, each said requester profile defining a relationship between a requester and historical device access data;

store, in a cache memory, data corresponding to said historical device access data for a plurality of said requesters;

receive a data read request for said data from one or more requesters and determining if said data read request matches said historical device access data;

retrieve, from said cache memory and in response to said data request from one or more requesters, said data corresponding to said historical device access data; and

send said data to said one or more requesters.

being capable of retrieving selected data from one or more mass storage devices external to said integrated circuit, based at least in

Serial Number: 10/808,182 Filing Date: March 24, 2004

Title: INTEGRATED CIRCUIT CAPABLE OF PRE-FETCHING DATA

Assignee: Intel Corporation

part on at least one requester profile relating at least one request of data with historical device access information of said at least one requester of data.

30. (Cancelled)

31. (Original) The system of claim 29, wherein:

said requester of data comprises one or more workstations capable of exchanging commands and data with said integrated circuit.

32. (Currently Amended) The system of claim 29 31, wherein:

each said workstation capable of generating at least one of a media access control (MAC) address, processor identification and user information.

33. (Cancelled)

34. (Cancelled)

35. (Original) The system of claim 29, wherein:

said integrated circuit is further capable of creating a requester profile by associating said requester of data with said historical device access information.

36. (Original) The system of claim 35, wherein:

said integrated circuit is further capable of updating said requester profile with additional device access information from one or more said requesters of data.

37. (Currently Amended) The system of claim 29, wherein:

said integrated circuit is further capable of retrieving device data layout information from one or more said mass storage devices and storing said device data layout information in cache memory.

Page 7 Dkt: P18318 (INTEL)

Serial Number: 10/808,182 Filing Date: March 24, 2004

Title: INTEGRATED CIRCUIT CAPABLE OF PRE-FETCHING DATA

Assignee: Intel Corporation

38. (Original) The system of claim 37, wherein:

said integrated circuit is further capable of responding to a request for data by determining the location of said data on said one or more mass storage devices by performing selected disk access operations on said data layout information in said cache memory.

Page 8

Dkt: P18318 (INTEL)

Claims 39-50 (Cancelled)